

Patent claims

1. A method for packaging and for transporting electronic devices (2), in which coverings (6) made of
5 a material that shrinks largely irreversibly under the action of temperature are pressed into receptacles (43) of a belt-type carrier body (4) that are open on both sides, electronic devices (2) in each case being inserted into the open front sides (61) of said
10 coverings, in which furthermore a belt top side (41) and also a belt underside (42) of the belt-type carrier body (4) are in each case closed off with a covering sheet (52, 53), after which the belt-type carrier body (4) with the coverings (6) situated therein and
15 electronic devices (2) inserted in said coverings is heated.

2. The method as claimed in claim 1, characterized in that
20 shell-type coverings (6) are pressed into the receptacles (43) of the belt-type carrier body (4) to produce a friction- or force-locking fit.

3. The method as claimed in claim 1 or 2, characterized in that
25 the coverings (6) are provided with a marking and/or indexing by means of an indexing apparatus (8) after insertion into the belt-type carrier body (4).

30 4. The method as claimed in claim 3, characterized in that the markings or indexings are applied by means of a stamp (81).

35 5. The method as claimed in claim 3, characterized in that the markings or indexings are applied by means of a laser.

6. The method as claimed in one of the preceding claims,

characterized in that

5 the belt-type carrier body (4) is provided with an indexing.

7. The method as claimed in one of the preceding claims,

10 characterized in that

the coverings (6), after heating, are released from inner walls (45) of the receptacles (43) of the belt-type carrier body.

15 8. The method as claimed in one of the preceding claims,

characterized in that

the electronic devices (2) are firmly enclosed by the shrinking coverings (6) during heating.

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9. The method as claimed in one of the preceding claims,

characterized in that

25 connecting sections (54) of an upper and/or a lower covering sheet (52; 53) between adjacent receptacles (43) are removed after the application of the covering sheet (52; 53) to the belt top side or underside (41; 42).

30 10. An apparatus for packaging and for transporting electronic devices (2), which has a belt-type carrier body (4) with a belt top side (41) and a belt underside (42) with receptacles (43) that are open on both sides between belt top side (41) and underside (42), into
35 which are pressed in each case coverings (6) made of a material that shrinks largely irreversibly under the action of temperature, electronic devices (2) in each case being inserted into the open front sides (61) of

said coverings, in which the belt top side (41) and also the belt underside (42) are in each case closed off with a covering sheet (52, 53), which can be removed and can be applied in each case optionally in
5 respect of the side for the insertion and withdrawal of electronic devices (2).

11. The apparatus as claimed in claim 10,
characterized in that
10 the belt-type carrier body (4) has a single row with an arbitrary number of receptacles (43).

12. The apparatus as claimed in claim 10,
characterized in that
15 the belt-type carrier body (4) has at least two rows that each have an arbitrary number of receptacles (43) and are arranged next to one another.

13. The apparatus as claimed in one of claims 10 to
20 12,
characterized in that
a placement direction (B) of the apparatus is optionally identical or opposite to a withdrawal direction (G).

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14. A method for the placement and for the withdrawal of electronic devices (2) of an apparatus as claimed in one of claims 10 to 12, populatable with electronic devices (2) in the back position which are to be
30 withdrawn in the normal position, having the method steps of:

- populating receptacles (43) of a belt-type carrier body (4) that are open on both sides with coverings (6) that are shrinkable under the action
35 of temperature to produce a friction- or force-locking connection,
- populating the coverings (6) with electronic devices (2),

- closing off a belt top side (41) and a belt underside (42) with an upper or a lower covering sheet (52; 53),
- heating the apparatus to produce a positively locking connection between coverings (6) and electronic devices (2),
- turning the apparatus through 180°,
- withdrawing the electronic devices (2) in the normal position with the removal of the lower covering sheet (52) - now lying at the top - of the belt underside (42).

15. A method for the placement and for the withdrawal of electronic devices (2) of an apparatus as claimed in one of claims 10 to 12, populatable with electronic devices (2) in the normal position which are to be withdrawn in the normal position, having the method steps of:

- populating receptacles (43) of a belt-type carrier body (4) that are open on both sides with coverings (6) that are shrinkable under the action of temperature to produce a friction- or force-locking connection,
- populating the coverings (6) with electronic devices (2),
- closing off a belt top side (41) and a belt underside (42) with an upper or a lower covering sheet (52; 53),
- heating the apparatus to produce a positively locking connection between coverings (6) and electronic devices (2),
- withdrawing the electronic devices (2) in the normal position with the removal of the upper covering sheet (52) of the belt top side (41).